

*Australian  
Systematic  
Botany  
Society*



# Newsletter

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ASBS

# AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

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## PRESIDENT'S REPORT

*[Delivered to the 21<sup>st</sup> Annual General Meeting in Perth.]*

### Science meets Parliament

In November, 174 scientists met 140 federal politicians. FASTS organised this two-day event to raise the profile of science among parliamentarians. There are only 170 or so politicians in federal parliament, so the response from that side was excellent (and apparently unparalleled). The number of scientists milling around Parliament House was also impressive. Each society represented by FASTS was asked to nominate a few representatives for the event. After consultation with the council and chapter conveners, ASBS was represented by Mike Crisp, Judy West and myself. Our non-eastern-seaboard representative pulled out at the last minute and our next President was unavailable.

Day one consisted of advice on lobbying and background to the workings of federal parliament. It also included a (for me) fascinating talk by the Chief Scientist of Australia, Robin Batterham, and some pearls of wisdom on journalism from Julian Cribb. Three politicians (Natasha Stott Despoja, Jeannie Ferris and Martin Evans) provided three different perspectives on science, and on parliamentarians! Primed with a list of FASTS' key issues, and advice on how to meet and greet the polities, we were ready for our interviews the next day.

Two scientists were assigned to each politician, with most scientists having two meetings. I met with Marise Payne (a liberal senator from NSW) and Tony Lawler (the National Party member for Parkes, a large seat in the NW corner of NSW). I explained the role of herbarium collections and associated research as underpinning many of the projects funded through the Natural Heritage Trust, and the new Virtual Australian Herbarium (linking together herbarium databases through a common portal). The provision of electronic information to people in the bush was an issue raised by FASTS and one in which politicians showed great interest. One of the politicians was concerned about the lower profile of some tertiary institutions, and we were encouraged to show greater support for the 'second tier' universities. Other issues raised by the politicians I met included too much jargon in technical reports, perceived bias (or at least barrows being pushed), and the lack of women in

science. We also discussed general FASTS issues such as the HECS load for science graduates and the brain drain to overseas.

The event was a success on a number of levels. Awareness of science, and to a lesser extent systematic botany, was raised. Scientists (and politicians) were seen to be real, and decent, people. Contacts and relationships were established. Scientists met with other scientists in distant fields and some collaborations were initiated. If a science issue reaches either house there may be a flicker of understanding that we can trace back to one of these interviews. FASTS will consider making this a regular event.

There were lots of catch cries, pithy quotes and good advice. A few I noted were:

- Science is not a cost, but a major investment in the country's future (the underlying message from FASTS).
- Politicians prefer to read about what someone does second-hand. That is, a media report is better than a letter.
- Politicians don't like being asked too much, having problems raised without solutions, people misstating facts, and listening to poorly prepared cases.
- Get the facts, simplify, then exaggerate (attributed to Clyde Cameron I think)
- Look out for the 'knowledge based century'.
- We shouldn't complain that sport is more popular than science. It is! Just like chocolate is more popular than poetry. We need to show how science is important to sport (based on a comment attributed to Robyn Williams).
- Innovation depends upon science, and innovation generates wealth as well as better social and environmental conditions.
- We need science to adopt, adapt, invent and implement, even if we bring in products invented outside Australia.
- Respond to calls for submissions by parliamentary committees. These appear regularly in newspapers. You *can* make a difference. All committees are listed on the parliamentary website (see [www.aph.gov.au](http://www.aph.gov.au)).
- Messages need to get to a politician's key staff members as much as to the politician.

Finally, at the launch of the 'Beetles of the World' identification CD at CSIRO Entomology, Professor

Sir Robert May (Chief Science Adviser in the United Kingdom and inspirational speaker) noted that no matter what other arguments can be put forward for understanding and documenting the biodiversity around us, the most powerful will always be that we are stewards of the natural world. Good stewardship is justification enough.

### Nature

On a related note (i.e. raising our profile), an important news item appeared in a recent issue of *Nature* (vol. 402, 11 November 1999, p. 110-111, 'US universities find that demand for botanists exceeds supply'). Rex Dalton leads off with the statement that 'plant systematists, once desperate for academic jobs, have become hot property, aggressively pursued by US universities seeking to be at the forefront of biodiversity research in the new millenium'. The item goes on to discuss cuts to 'organismal biology in the 1970s and 1980s', and the resulting shortage of qualified and experienced plant systematists today.

According to Dalton, plant systematists (particularly those with molecular biology skills) will be in great demand in coming years to work on topics from biodiversity conservation to genetically engineered crops. Australia has an urgent need for environmental research, and a similar shortage is to be expected here. Perhaps this provides a glimmer of hope for recent graduates, but just as importantly a reality check for future academic and other research appointments.

### Three years ago

In December 1996 (*ASBS Newsletter* no. 89) I introduced myself as a phycologist, and went on to discuss the 'taxonomic scope' of ASBS. I concluded that we shouldn't fuss too much about circumscriptions and that vascular plants were

likely to remain the core of our activities. Other related biota (e.g. algae and fungi) should not be excluded from ASBS, and we should 'meet on occasions with other societies, whether they be ecological, mycological or entomological'.

Here in Perth we are doing just that. Once again we are meeting with the Society of Australian Systematic Biologists, strengthening a relationship that has served us both well. The conference also extends us further into conservation, history and geology, all areas of interest to systematists. And as if to meet my performance measure as President, the conference includes 'Invertebrate Biodiversity and Conservation'. In relation to my first caveat, we do have members in our society who confess to an interest in cryptograms. Our new treasurer, e.g., has a double life as a bryologist.

ASBS three years later still has a strong identity and a major role to play in the scientific and general community. As a voice for plant systematics in Australia we are doing reasonably well, although we have only partly stemmed the flow of reduced funding for research. At a regional level I think the society is still weak but perhaps it should concentrate on its national focus and leave regional activities to the discretion of the chapters (in some cases organisations or other societies play a bigger regional role). That decision I will leave to the capable hands of the incoming executive.

*Tim Entwistle*

# ASBS INC BUSINESS

## Minutes of the 21st Annual General Meeting of the Australian Systematic Botany Society

Held in the Lecture Theatre, Alexander Library,  
Perth Cultural Centre, Francis St, Perth on  
Thursday 9th December.

Meeting opened at 5.35 p.m.

The President welcomed the 37 members in  
attendance

### Apologies

Barry Conn, Elizabeth Brown

### Minutes of 20th Annual General Meeting in Sydney, 1<sup>st</sup> October 1998

It was proposed that the minutes of the 20th Annual  
General Meeting (as published in the *Australian  
Systematic Botany Society Newsletter* 97: 3-9) be  
accepted. Proposed: Alex George; seconded: Bob  
Hill. Carried.

### Presidents Report (Tim Entwisle)

See page 1 of the Newsletter

### Treasurers Report

John Clarkson tabled the Treasurers report (see  
below). Gordon Guymer moved that it be accepted.  
Seconded: J. West. Carried.

### Recommendation

It was recommended that the membership  
subscriptions remain the same for next year  
(2000) but be increased the following year if  
the financial situation changes.

A brief discussion on the possible effects of the GST  
followed. Newsletter production costs will  
possibly be somewhat higher.

### Membership

Life membership. No nominations were received.

### New Members

The following new members were welcomed to the  
Society:

### Ordinary/Institutional

Mr Dirk Hirschberg	2 Briar Crescent KINGSLEY WA 6026
Ms Leonie Stanberg	37 Malvern Avenue MERRYLANDS NSW 2160
Dr Joe Miller	Australian National Herbarium GPO Box 1600 CANBERRA ACT 2601
The Librarian	Hector Library, Museum of New Zealand
Mr Tony Roberts	5 McCarthy Close BRINSMEAD QLD 4870
Prof David Mabberley	National Herbarium of NSW Royal Botanic Gardens Mrs Macquaries Road SYDNEY NSW 2000
Dr Don Foreman	50 Benjamin Drive, Lara VIC 3212
Mr Alex Chapman	WA Herbarium, CALM. Locked Bag 104, Bentley Delivery Centre, WA 6983

### Student Members

Ms Ellen Weber	School of Biol. Sci., James Cook Uni., PO Box 6811 CAIRNS QLD 4870
Ms Tiffany Rees	9 Robert Holl Drive OURIMBAH NSW 2258
Mr John Dowe	32 Honeysuckle Drive ANNANDALE QLD 4814
Mr Ainsley Calladine	TESAG James Cook University TOWNSVILLE QLD 4811
Ms Xiufu Zhang	Department of Botany University of New England ARMIDALE NSW 2351
Ms Siti Ariati	School of Botany University of Melbourne PARKVILLE VIC 3052
Mr Curt Brubaker	Centre for Plant Biodiversity Res CSIRO Plant Industry GPO Box 1600 CANBERRA ACT 2601
Mr Michael Whymys	2 Maxwell Court ATTWOOD VIC 3049
Ms Selga Harrington	57 Lower Washington Drive BONNET BAY NSW 2226



Mr Richard Jobson	Department of Botany University of Queensland ST LUCIA QLD 4072
Ms Lina Juswara	Burton and Garran Hall GPO Box 813 CANBERRA ACT 2601
Mr Bryan Mole	105 Fernhill Road MT EVELYN VIC 3796
Mr Scot Kelchner	Australian National Herbarium GPO Box 1600 CANBERRA ACT 2601
Ms Heather Walker	PO Box 827 SMITHFIELD QLD 4870
Mrs Mary Gandini	3 Moowooga Street EARLVILLE QLD 4870
Mrs Jo Pryce	16 Satinash Close REDLYNCH QLD 4870
Ms Rismita Sari	James Cook University McGregor Road SMITHFIELD QLD 4878
Mr Wayne Gebert	2/71 Queen Street RESERVOIR VIC 3073
Ms Juliet Wege	Dept of Botany, University of W.A. , Nedlands, WA 6009

### Newsletter Report

Tabled by the editor Bob Hill and reproduced below.

Discussion took place within Council concerning Bob's recommendation that the newsletter go electronic, resulting in a considerable saving to the Society. It was resolved that for the next year the newsletter would be offered in both electronic and hard copy form with members to be asked to make a choice of preferred format at the end of next year when the membership form is posted. A reduction in membership fees is likely for those choosing to take the newsletter in electronic form. An announcement that the newsletter is available on the web site will be e-mailed to all members who have this capacity. Anyone who is happy to receive the newsletter electronically **now** should contact the editor.

The cost of conversion to html format will be covered by the Newsletter budget.

Questions were raised concerning the archiving of the Newsletter if it goes electronic. Suggestions that it might be distributed as an e-mail attachment were not favourably received because of the clogging of the e-mail system and the view that such a product is not a publication.

Bob Hill was thanked for his efforts in the past year. He will continue as Newsletter Editor for the next year with the South Australian chapter of ASBS to provide help in packaging and posting.

### Eichler Research Fund

#### Grant Recipients 1999

Peter Weston chaired the selection committee and three awards of \$1000 were made. The successful recipients were Ainsley Calladine (James Cook Uni, Townsville), Dean Nicolle (Flinders Uni, SA) and John Hodgson (Uni New England, Armidale). Ainsley Calladine was presented with his cheque by the President at the meeting.

Reports from the 1998 grant recipients will appear in the newsletter.

### Society Meetings

#### 1999

Alex George reported that there had been 170-180 registrations for this very successful Dampier 300 conference which was a joint venture between ASBS, Society of Australian Systematic Biologists and Invertebrate Biodiversity & Conservation.

#### Student assistance

The president presented cheques (equal to the cost of student registration) to those student members of ASBS who presented papers or posters. These were Ryonen Butcher, Ainsley Calladine, Kristina Lemson, Elisa Raulings, Lina Juswara, Kerri Clarke, Michael Whyms, Juliet Wege and Siti Ariati.

#### 2000

Peter Weston is organising a workshop with Rod Page (Component, Tree View, Nexus Data Editor etc. etc.; see <http://taxonomy.zoology.gla.ac.uk/rod/rod.html> for more information on his background) in Sydney in April.

This will not be associated with the AGM of the Society since it is too close to the 1999 meeting and would require that nominations for the next council be called in the same newsletter as the new council is announced. The time and place of the next AGM is to be advised but will probably be in Sydney or Canberra later in the year.

#### International Legume conference: Canberra July 2001

Mike Crisp reported on arrangements for this conference. The ASBS AGM will not be associated with this conference but assistance will be available to student members of ASBS who present a paper or poster.

### **Flora Malesiana 5: Sydney September 2001**

Judy West reported that this conference had not been held in Australia before. A brochure was included in the Newsletter no. 100. The main part will be held in Sydney with workshops (developing interactive keys, family groups etc.) to be held in Cairns. The AGM of ASBS will be associated with the Sydney meeting and student assistance will also be available to student members of ASBS who present a paper or poster (student assistance will only be available for attendance at one conference, not two).

### **Flinders/Robert Brown bicentennial: 2001 on**

A lunch-time meeting to discuss commemoration of this event was convened by John Clarkson during the Dampier 300 conference. A subcommittee consisting of John Clarkson, Alex George and David Mabblerley was formed and members will be kept informed of progress via the ASBS Newsletter. A Flinders Bicentenary Newsletter documenting plans already under way in each state has been produced by the Queensland Flinders 2002 Committee.

### **Melbourne 2003**

The Melbourne Herbarium will be 150 years old and plans are under way to commemorate this event.

### **Other business**

ASBS is now part of the Federation of Systematic Biology organisations (see President's Report, Newsletter 98). Included in this group is the Society of Systematic Biologists represented at the Dampier 300 meeting by Vicki Funk, their immediate past president, and Dick Olmstead, the editor of their journal, *Systematic Biology*. A free copy of an issue of the journal was available at the conference and Dan Faith of the Society of Australian Systematic Biologists is the Australian associate editor. Membership of this society was encouraged. For those not present, further information can be found at [www.utexas.edu/depts/systbiol/](http://www.utexas.edu/depts/systbiol/)

In view of the excellence of the presentations, Murray Henwood asked whether consideration could be given to student presentation awards. The president commented that they were a lot of work and the Council preferred to give assistance in the present fashion. Bill Barker commented on inequalities of access to funding and equipment for students. Mike Crisp pointed out that this already had a long history in ASBS. Kristina Lemson (as a student) considered the present form of assistance to

be better and Judy West that on a *curriculum vitae* it was better to be able to put the assistance. John Clarkson commented that an Eichler Award should be considered to be the prestigious award for students.

Recommendation: That student presentation awards be considered again by Council.

*Australian Systematic Botany* – In his capacity as the new chair of the editorial board of *Australian Systematic Botany*, Tim Entwistle outlined a proposal that ASBS members be allowed access to an electronic version of the journal at a considerably reduced price (in the order of \$30). It was thought that the journal was likely to be completely electronic within two years. Bob Hill suggested that Tim negotiate a price. Roberta Cowan suggested that members of ASBS who resign would lose access to ASB but this was not considered to be the case by editorial board members present. Vicki Funk raised the problem that becoming totally electronic meant that the journal was not available to countries without access to this form of communication. Mike Crisp commented that the cost of hard copy was too high but he already had access to the journal in electronic form through his University library and was therefore not interested in the proposal. A possible change in the title of the journal was also foreshadowed.

Bob Hill has suggested to the Palynological and Palaeobotanical Association of Australasia that they become part of ASBS. The new council will follow up on this and its implications if an approach is made.

### **Elections**

The following nominations were received for council and an election was unnecessary.

President	Barry Conn
Vice President	Bill Barker
Treasurer	Elizabeth Brown
Secretary	Robyn Barker
Councillors	Bob Makinson, Kristina Lemson

In the absence of the new President, Bill Barker the new Vice President thanked the outgoing council.

Meeting closed at 7.00 p.m.

## Treasurer's Report for the 12 Months ended 31 December 1998

### Presented to the Annual General Meeting, Perth, 9th December 1999

#### Introduction

It gives me great pleasure to present the annual report on the Society's finances for the year ended 31<sup>st</sup> December 1999. Continuing the practice introduced last year, income and expenditure for the research fund are clearly separated from general funds. Funds in these accounts are administered for quite different purposes and now that Approved Research Institute Status has been secured it is important that the Society can demonstrate that the research funds are being administered in compliance with section 73A of the Income Tax Assessment Act 1936. With this report for 1998 being delivered so late in the year progressive totals to 30<sup>th</sup> November 1999 are discussed where relevant.

#### Membership

The downward trend in membership numbers which was reason for concern as recently as two years ago has been reversed and it is pleasing to report that membership numbers are now on the increase. We closed 1998 with 319 members having seen membership numbers fall as low as 201 in 1996. Thirteen persons (4 Ordinary, 9 Students) were admitted to the Society during the 1998 calendar year. A further 22 (3 Ordinary, 18 Students, 1 Institutional) have applied for membership since January 1999 and the membership currently stands at 328 (Table 1).

Late payment of subscriptions remains a problem. Council has been working hard to address this and the situation is improving. The billing system introduced this year has been well-accepted but we need more members to support us by paying early. The outgoing Council has worked hard to recover those members who had let their subscription lapse and I would encourage the incoming council to remain attentive to this matter as well as actively promoting membership particularly amongst

students. I notice the staff of many herbaria are not members. Perhaps it is time to try to lobby for support in this area.

#### General Fund

##### Income

Total income for the financial year might appear to be substantially higher than for 1997 but there is an unusual source of income which should be explained then discounted before comparisons are made. The general account was used to pay expenses related to a field trip associated with the Monocot conference held in Sydney. \$8,161 included in the conference income of \$12,225 for 1998 relates to this. This was transferred from the Sydney organising committee to pay accounts associated with the field trip. It was spent in full before the end of the accounting period, so it was effectively cost neutral. When this is taken into account the total income for 1998 is actually comparable to 1997.

Low interest rates had a negative impact on income from investments. Council attempted to minimise these effects by carefully monitoring interest rates and diversifying the placement of funds. Even in the face of this, the income from interest fell by a little over \$400.

The decrease in income from subscriptions was expected. The 1997 figure was artificially inflated by members who paid back dues in response to a campaign that year to contact those who had let their subscriptions lapse. 1998 was also the first year the Society extended the concessional rate to ordinary members who were retired or unemployed. 24 members availed themselves of this offer. This total has now risen to 36. 25% of the membership now pay subscriptions at the concessional rate of \$15.

Fee	Full	Concessional	Gratis	Total
Ordinary	218 (16)	36 (1)	0	254 (17)
Student	NA	47 (6)	0	47 (6)
Institutional	11 (1)	NA	15	26 (1)
Life	NA	NA	1	1
Total	229 (17)	83 (7)	16	328 (24)

Table 1. Membership of Australian Systematic Botany Society 31<sup>st</sup> December 1998 (unfinancial members in brackets).



The trading statement for 1998 has shown the modest profit foreshadowed in last year's treasurer's report. What books and merchandise are left have now been written down to a realistic value and Council is hoping to divest the Society of this stock soon.

Conference income includes refunds of the cash advances for the recent conferences in Adelaide (1997) and Sydney (1998) and the SECWAB conference in Perth in 1993.

### **Expenditure**

Expenditure for 1998 must be adjusted in the same way as income before comparisons are made with 1997 figures. When this is done expenses for 1998 were \$2,525 less than 1997. The net result has been a return to a modest profit (\$780) which is in line with the small surplus Council attempts to budget for each year.

Conference expenses relate to the 1998 Monocot conference and the 1999 Dampier 300 conference. The \$2,000 advance to the Monocot conference has been refunded in full and the organising committee of Dampier 300 has foreshadowed a full refund of the \$1,000 advance.

The cost of printing and distributing the Newsletter fell slightly in 1998. With the move from Darwin to Hobart, printing costs were reduced. The editor, Bob Hill, successfully managed to keep production costs below the annual budgeted figure of \$4,800 however printing costs have risen with Bob's move to Adelaide. The cost of printing and distributing the newsletter has been running over budget for 1999. The newsletter is the Society's major recurring expense and Council must keep a careful watch on costs in this area. Current advice is that printing costs will probably rise with the introduction of the GST.

The annual subscription to FASTS is calculated at \$4.50 per full fee paying member. FASTS do not levy student members or members paying the concessional rate. For some unexplained reason the Society has been running a year in arrears in subscriptions. This was rectified in 1998 which explains the double payment recorded in the expenditure.

### **Current Assets**

The Society closed the 1998 year in a sound financial position with total assets in the general fund of \$35,452 (\$33,755 in cash, \$502 in merchandise and \$1,195 in books). Council is still

grappling with the challenge of divesting the Society of its non cash assets in a profitable or at least break even manner.

### **Research Fund**

The Research Fund is now guaranteed a bright future. Net assets increased from \$60,365 to \$84,957 in the twelve months ended 31st December 1998. The current net value (30.11.99) is \$112,943. Grants totalling \$2,750 were awarded in 1998. This is a \$750 increase on the total offered in 1997. \$3,000 will be awarded in 1999. Funds are invested in a range of investment products managed by Commonwealth Investment Services a wholly owned subsidiary of the Commonwealth Bank of Australia.

The Society secured Approved Research Institute Status on the 27<sup>th</sup> October 1998. Donations to the Research Fund of \$2 or more are now tax deductible.

### **Good and Services Tax**

As a non profit organisation with an annual turnover less than \$100,000 the Society is exempt from some of the provisions of the Goods and Services Tax. We are not required to apply for an Australian Business Number (ABN). The Australian Taxation Office will be running a series of seminars early in the new year to explain the implications of the GST for non profit societies such as ASBS.

### **Summary**

In summary, the Society remains in a sound financial position. Operating costs are still being met wholly from income from subscriptions but the margin is growing smaller and budget projections suggest the incoming council must consider increasing subscriptions for 2001.

This will be my final report as treasurer. This year I pass care and responsibility for the Society's finances to Elizabeth Brown of the National Herbarium of New South Wales. As I do so, I would like to take this opportunity to extend my thanks to the members who have made my task so enjoyable over the past three years. I would also like to acknowledge the support and encouragement given to me by Tim and fellow councillors as we worked to restructure the Society's finances and to secure tax deductibility for the research fund.

*John Clarkson, Honorary Treasurer*

**SOME EXPLANATORY INFORMATION TO ACCOMPANY FINANCIAL STATEMENT**

These notes expand upon certain aspects of the audited financial statement and relate to letters associated with a number of headings. They should not be confused with the comments related to numbers under the heading NOTES which are comments by the auditor.

**A. Conference Income**

Refund from SECWAB Conference, Perth 1993	563.86
Refund of cash advance Systematics Conference, Adelaide 1997	1,500.00
Refund of cash advance Monocot Conference, Sydney 1998	2,000.00
Cash advance for Monocot Field Trip	8,161.46
<b>Total</b>	<b>12,225.32</b>

**B. Subscriptions to ASBS**

The 1997 figures were artificially inflated by 38 members who paid one or more years back dues. Subscription fees have remained unchanged since 1995.

**C. Conference Expenses**

Advance to Monocot II	2,000.00
Advance to Dampier 300	1,000.00
Student support Monocots II	1650.00
Honorarium Nancy Burbidge Lecture	300.00
<b>Total</b>	<b>3,750.00</b>

**D. Meeting Expenses**

AGM and Council Meeting held in Sydney	
Air fare J.R. Clarkson	580.40
Air fare R.M. Barker	375.40
Meeting with Commonwealth Minister for the Environment	
Air fare T. Entwisle	444.00
<b>Total</b>	<b>1,399.80</b>

**E. Newsletter Expenses 1998**

Printing, packing and postage 4 issues 93-96

**F. Royalties History Book Sales**

Income from sales of the History Book is shared between ASBS (33.51%) and the stakeholders P. Short (28.85%), W. & R. Barker (16.73%) and the Maud Gibson Trust (20.91%).

**G. FASTS Subscription**

227 declared members @ \$4.50 each. Gratis, institutional and student members not included. Total includes subs for 2 years 1997-98 and 1998-99.

**H. Transfer to Research Fund**

50% merchandise sales 1997	129.00
50% merchandise sales 1998	394.00
<b>Total</b>	<b>523.00</b>

**I. Monocot Field Trip Expenses**

Expenses are matched by cash advance from the Monocot Conference - see conference income.

**J. Australian Bond Fund**

1998	36,840.493 units held @ withdrawal value of \$1.107422 per unit.
1997	35,375.521 units held @ withdrawal value of \$1.106085 per unit.

**K. Commonwealth Growth Fund**

1998	15,711.760 units held @ withdrawal value of \$1.457116 per unit.
1997	15,215.825 units held @ withdrawal value of \$1.295893 per unit.

## AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

### COMMITTEE MEMBERS' REPORT

Your committee members submit the financial report of the Australian Systematic Botany Society Incorporated for the financial year ended 31 December 1998.

#### Committee Members

The names of the committee members who held office throughout the year and at the date of this report are:

Terry Macfarlane	Councillor
Peter Weston	Councillor
Barry Conn	Vice President
Robyn Barker	Secretary
John Clarkson	Treasurer
Tim Entwisle	President
Andrew Lyne	Public Officer

#### Principal Activities

The principal activities of the association during the financial year were to promote systematic botany in Australia

#### Significant Changes

No significant change in the nature of these activities occurred during the year.

#### Operating Result

The surplus for the year amounted to \$22,890 (1997 : \$8,429)

	1998	1997
	\$	\$
Research Fund	22,110	10,134
General Fund	780	(1,705)
	22,890	8,429

Signed in accordance with a resolution of the members of the Committee.

*T.J. Entwisle* (President)      *J.R. Clarkson* (Treasurer)

Dated this 18<sup>th</sup> day of November 1999

### STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31<sup>st</sup> DECEMBER 1998

#### RESEARCH FUND

	Note	1998	1997
Income			
Donations to Research Fund		20,365	10,175
Investment income	2	3,477	1,968
50% of profits from sales <sup>H</sup>		523	0
		24,365	12,143

<b>Expenditure</b>		
Research Grants	2,250	2,000
Bank Charges	5	8
	<b>2,255</b>	<b>2,008</b>
<b>Surplus (Deficit) for year</b>	<b>22,110</b>	<b>10,134</b>

**STATEMENT OF INCOME AND EXPENDITURE  
FOR THE YEAR ENDED 31st DECEMBER 1998**

**GENERAL FUND**

	Note	1998	1997
<b>Income</b>			
Sales			
Merchandise		788	258
History books		1,000	515
Arid Australia books		60	185
Conifer books		420	192
		<b>2,268</b>	<b>1,150</b>
Less cost of goods sold			
Opening stock - merchandise		1,319	2,565
Opening stock - books		2,365	2,762
Closing stock - merchandise		(502)	(1,319)
Closing stock - books		(1,195)	(2,365)
		<b>1,987</b>	<b>1,643</b>
Gross Surplus (Deficit) from Trading		<b>281</b>	<b>(493)</b>
Advertising		100	0
Conferences <sup>A</sup>		12,225	1,450
Investment income	2	1,035	1,441
Subscriptions to ASBS Inc <sup>B</sup>		8,080	11,260
Postage recovery		70	0
Sundry income		8	20
<b>Total Income</b>		<b>21,798</b>	<b>13,678</b>
<b>Expenditure</b>			
Auditors remuneration		375	300
Bank fees		51	47
Conference expenses <sup>C</sup>		3,750	3,150
Filing fees		30	60
General expenses		12	20
Meeting expenses <sup>D</sup>		1,400	928
Newsletter expenses <sup>E</sup>		4,220	4,697
Postage & stationery		111	25
Royalties - history book sales <sup>F</sup>		342	5,058
Subscriptions (FASTS) <sup>G</sup>		2,043	1,098
Transfer to Research Fund <sup>H</sup>		523	0
Monocot field trip <sup>I</sup>		8,161	0
		<b>21,019</b>	<b>15,383</b>
<b>Surplus (Deficit) for year</b>		<b>780</b>	<b>(1,705)</b>

# BALANCE SHEET AS AT 31st DECEMBER 1998

	Note	1998	1997
<b>Current Assets</b>			
<b>Cash and Investments</b>			
Research Fund			
Cash at bank		21,265	1,518
Investments			
Commonwealth Australian Bond Fund (at market value) <sup>J</sup>		40,798	39,128
Commonwealth Growth Fund (at market value) <sup>K</sup>		22,894	19,718
		84,957	60,365
<b>General Fund</b>			
Cash			
Cash at bank		2,078	5,494
Term Deposit A		10,000	10,000
Term Deposit B		5,336	5,159
Investments			
Commonwealth Cash Management Account		16,342	10,336
		33,755	30,989
		118,712	91,353
<b>Inventories</b>			
General Fund			
Merchandise		502	1,319
History of Systematic Botany		1,195	2,165
Conifer Books		0	200
		1,697	3,684
<b>Total Current Assets</b>		120,409	95,037
<b>Net Assets</b>		120,409	95,037
<b>Members' Funds</b>			
Research Fund			
Accumulated surplus at end of year	3	79,680	57,570
Asset Revaluation Reserve	4	5,276	2,795
		84,957	60,365
General Fund			
Accumulated surplus at end of year	3	35,452	34,673
<b>Total Members' Funds</b>		120,409	95,037

## NOTES TO AND FORMING PART OF THE ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 1998

### 1. Statement of Significant Accounting Policies

This report is a special purpose financial report in order to satisfy the financial reporting requirements of the Associations Incorporation Act (ACT). The committee has determined that the association is not a reporting entity.



The financial report has been prepared in accordance with the requirements of the Associations Incorporation Act (ACT).

No Australian Standards, Urgent Issues Group Consensus Views or other authoritative pronouncements of the Australian Accounting Standards Board have been intentionally applied.

The financial report has been prepared on an accruals basis and is based on historic costs and does not take into account changing money values, or except where specifically stated, current valuations of non-current assets.

The following specific accounting policies, which are consistent with the previous period unless otherwise stated, have been adopted in the preparation of this financial report.

(a) **Membership**

Membership is recorded on a cash basis.

(b) **Income Tax**

Under present legislation the association is exempt from income tax accordingly no provision has been made in the accounts.

(c) **Asset Revaluation Reserve**

Revaluations of assets are transferred to the Asset Revaluation Reserve.

(d) **Comparative Figures**

Where required by Accounting Standards comparative figures have been adjusted to conform with the changes in presentation for the current year.

(e) **Members Funds**

In accordance with the rules of the association accumulated funds are not available for the distribution to members.

	1998	1997
	\$	\$
<b>2 Investment Income</b>		
Research Fund		
Interest Received		
Cheque account	2	436
Distributions		
Commonwealth Australian Bond Fund	2,743	856
Commonwealth Growth Fund	732	676
	3,477	1,968
General Fund		
Interest Received		
Cheque account	11	307
Term deposits	518	799
	529	1,106
Distributions		
Commonwealth Cash Management Trust	506	336
	1,035	1,441
	4,512	3,409
<b>3 Accumulated Funds</b>		
Research Fund		
Accumulated surplus at beginning of year	57,570	47,435
Surplus / (deficit) this year	22,110	10,134
Accumulated surplus at end of year	79,680	57,570

General Fund

Accumulated surplus at beginning of year	34,673	36,377
Surplus / (deficit) this year	780	(1,705)
Accumulated surplus at end of year	35,452	34,673
	115,133	92,243

4 Reserves

Research Fund

Asset Revaluation Reserve		
Balance at beginning of year	2,795	0
Transfers this year	2,481	2,795
Balance at end of year	5,276	2,795

5 Members of the Committee

The names of the committee members who have held office during the financial year are:

Tim Entwisle	President
Barry Conn	Vice President
Robyn Barker	Secretary
John Clarkson	Treasurer
Terry Macfarlane	Councillor
Peter Weston	Councillor

6 Research Committee

The Australian Systematic Botany Society is an approved research institute.

The approved membership of the Research Committee comprises:

Terry Macfarlane  
Peter Weston  
Barry Conn  
Robyn Barker  
John Clarkson

Tim Entwisle

## INDEPENDENT AUDIT REPORT TO THE MEMBERS

### Scope

We have audited the accompanying financial statements, being, a special purpose financial report comprising the Statement by Members of the Committee, Statement of Income and Expenditure, Balance Sheet and notes to and forming part of the financial statements Australian Systematic Botany Society Incorporated for the financial year ended 31 December 1998. The committee is responsible for the financial report and have determined that the accounting policies used are appropriate to meet the needs of the Associations Incorporations Act (ACT) and the needs of members. We have conducted an independent audit of this financial report in order to express an opinion on it to the members. No opinion is expressed as to whether the accounting policies used, and described in Note 1, are appropriate to the needs of the members.

The financial statements have been prepared for the purpose of fulfilling the requirements of the Associations Incorporation Act (ACT). We disclaim the assumption of responsibility for any reliance on this report or on the financial report to which it relates to any person other than the members, or for any purpose other than for which it was prepared.

Our audit has been conducted in accordance with the Australian Auditing Standards. Our procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report, and on the evaluation of significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial report is presented fairly in accordance with the accounting policies described in Note 1 to the financial statements. These policies do not require the application of all Australian Accounting Standards and other professional reporting.

The audit opinion expressed in this report has been formed on the above basis.

#### **Qualification**

As is common for organisations of this type, it is not practicable for the association to maintain an effective system of internal control over the receipt of revenues until their initial entry in the accounting records. Accordingly, our audit was limited to the amounts recorded.

#### **Qualified Audit Opinion**

Subject to the above qualification, in our opinion, the financial report presents fairly in accordance with the accounting policies described in Note 1 to the financial report the financial position of the Australian Systematic Botany Society Incorporated as at 31 December 1998 and the results of its operations for the year then ended.

**G.J. Mitchell, *Partner***

HC Audit Services

Cairns

18<sup>th</sup> November 1999

### **Newsletter editor's report**

1999 has been a reasonably uneventful year for the newsletter. After settling in to a new position and city, the transition for the newsletter was fortunately quite easy. The printing here is not quite as high in quality, but is usually quick and about the same cost as in Hobart. I still receive plenty of unsolicited input, although the input for issue 100 was a little disappointing. It is probably a sign of the times that few people have much spare time.

The biggest issue for me by far is packaging and posting the newsletter. There are more than 320 to do, and since I don't have assistance with this it is very time consuming. This is the main reason why I don't want to continue with the job. I believe it is time to face the issue of placing the newsletter on the

web. If this was made a financial incentive (e.g. subs could be \$35 if you take a hard copy of the newsletter or \$15 if you take it off the web) then there would be an immediate and very significant impact for the editor. I suspect the number of mailouts would drop to less than half, the society would make more money and everyone would be happy (especially me). I presume we could institute a password system for access to this part of the web site, so that wouldn't be a problem. In my view, the sooner this is done the better, especially since the web site is now excellent and should be the public face of the society.

*Bob Hill*

## ABRS REPORT

### Staff

Don Foreman finished his contract with ABRS at the end of 1999 and returned to Melbourne. We all thank him for his hard work over the past couple of years and wish him well in the future.

The management structure of ABRS is still undecided. A decision has been made to replace the two section heads with a single director, with an interim director (internally recruited) to oversee the changes, but an appointment has not yet been made.

### Milestones for 1999

ABRS has had its best year to date in terms of publications and other achievements.

- We published 11 titles in hardcopy/CD (previous best - 7 titles in one year)
- We published our first interactive key (*The Families of Flowering Plants of Australia. An Interactive Identification Guide*).
- We published our first set of educational posters (on Grasses in Australia).
- We published the first 4 parts of *Species Plantarum*.
- We published the first 2 cooperative publications with partnership publishers (other than CSIRO Publishing) (*Vegetation of Tasmania* and *Australian Rushes*).
- We greatly expanded our website, including initiating a "What's New" section, new suite of ABLO pages and much more.
- We launched ABIF with 5 main modules - Fauna, Marine Algae, Freshwater Algae, Vascular Plants, Lichens.
- We launched the electronic version of several *Fauna of Australia* volumes.
- We distributed over \$2 million in grants for year 2000 (probably the most ever for a single year).
- We established a special (one-off at this stage) fund within the Grants Program to support development of WWW and CD interactive keys and catalogues.
- We established a special Bursaries fund within the Grants Program to support student travel to taxonomic conferences.

### Publications

*Flora of Australia Supplementary Series No. 9: Lichens of Rainforest in Tasmania and south-eastern Australia*, by G.Kantvilas and S.J.Jarman, was published in

December. This book is illustrated throughout with colour photographs and provides introductory chapters on lichens, the Tasmanian lichen flora, and the distribution and ecology of lichens in rainforest. There is also an identification key with glossary.

*Australian Rushes*, edited by K.A.Meney and J.S.Pate, is a copublication of the University of Western Australia Press and ABRS. It deals with Restionaceae and the allied families Ecdeiocoleaceae and Anarthriaceae. There are chapters on morphology, anatomy, biology, diseases, propagation and conservation, as well as illustrated keys (one for W.A., one for the other States). All the species are described and illustrated with beautiful pencil drawings by Ellen Hickman.

Welwitschiaceae and Stangeriaceae, parts 2 and 3 in the *Species Plantarum: Flora of the World* series, were published in November.

The September issue of *Biologue*, the report of ABRS activities, has been distributed. The text is also available on the ABRS website at <http://www.anbg.gov.au/abrs>.

Proteaceae 2, *Grevillea*, is in press and should be available in late February or early March.

### Other activities

We launched the Australian Biodiversity Information Facility (ABIF) at the Dampier 300 Conference in Perth on December 10. ABIF is an internet-based census of Australian flora and fauna, which will eventually list all known Australian species. It is a major cooperative venture between ABRS, other scientific institutions and scientists for Australia and overseas. At present there are links to lists for fauna, vascular plants (APNI), marine and freshwater algae, and lichens.

The site can be accessed at:  
<http://www.anbg.gov.au/abrs/ABIF.htm>

The ABRS Advisory Committee met on 11 December, in Perth, following the Dampier 300 Conference. A list of members for both the Advisory and Editorial Committees is available at the ABRS web site at <http://www.anbg.gov.au/abrs>

Tony Orchard, Don Foreman, Alice Wells and Keith Houston attended the Dampier 300 Conference. Jane

Mowatt attended the Australian Network for Plant Conservation in Albury in November.

1999 has been a very successful year for ABRs, especially considering our achievements in the context of a major structural reorganisation in January, the move to a new Branch and Branch Head in February, the loss of Jean Just in August, and movements towards another major structural reorganisation in

August–December. We hope that 2000 will be as productive, and that we will finally get a permanent management structure in place for ABRs.

Best wishes to everyone for a happy and prosperous New Year.

Annette Wilson  
Acting Executive Editor Flora

## ABLO REPORT

### Kew News

The first week at Kew is heavy going for the incoming ABLO even if he/she has been here previously as a visitor. Apart from the trials and tribulations of transferring to London, your arrival at Kew is a rapid learning curve. Not only do you meet numerous staff members (over 100 in the Herbarium and Library) and try to put name to face the next time you pass them in a corridor, you also have many procedures and processes to learn. You rely heavily on the outgoing ABLO during the overlap week and I sincerely thank Alex Chapman and Leonie for helping Shona and me in so many ways.

I was beginning to wonder whether we were going to see an autumn as the warm weather lingered on to the end of October and although temperatures have dropped significantly it is still relatively mild at the time of writing in mid November. The autumn colour change in Kew Gardens was relatively sudden, and quite spectacular, but with a few good breezes most trees are now bare.

### Changes at Kew

From October 1st the new entrance to the Herbarium and Library, on the eastern side of the building, became functional. The old front entrance has been closed permanently and it is intended to utilize the old reception area for photocopy and fax machines. Over the next few months a new upgraded security swipe card system will be introduced.

During September/October the old Palm Herbarium room on the top floor of Hunter House was upgraded with the installation of new herbarium specimen cupboards and benching. It will now be used to take the Euphorbiaceae overflow from the connecting corridor between Wings B & C.

### Staff

Dr David Cutler retired on August 13th after 37 years at Kew. He ran the anatomy and molecular section in the Jodrell laboratories and had built up a worldwide reputation in plant anatomy. He will be best known in Australia for his studies of Restionaceae.

To celebrate David Cutler's contribution to plant anatomy and systematics a two-day international conference *Under the Microscope* was held at the Linnean Society, London. Many people travelled across the world to attend and a number of these were former students of David. It was one of the most cohesive and intensive conferences that I have attended with 24 papers being presented covering a wide range of anatomical topics from mangrove seedling anatomy, secretory processes, epicuticular waxes to the latest research on tracheids in lower Devonian fossils.

Jill Crowley, who has been at RBGKew for more than 31 years, was recently awarded the Kew Medal in acknowledgement of her contribution to the herbarium and living collections.

### Visitors

Recent visitors included Neville Marchant (PERTH) who made a brief social visit, Robert & Lily Friend, Munrusen, Qld spent two weeks in the Library researching early Australian orchid collectors and Paul Ormerod from Cairns studying Philippine and Australian orchids.

### Book Launch

The first volume of *Genera Orchidacearum* was launched at Kew on 3rd September. This project is aimed at providing a more robust and natural account of the Orchidaceae at the generic level and



above using a combination of molecular and other techniques.

### British Museum of Natural History News Staff

Dr Richard Bateman takes over as Keeper of Botany on November 29th. He is currently at the Royal Botanic Gardens, Edinburgh where he is Director of Science.

### Collections

Currently the large bound books containing herbarium collections from early botanical voyages like Sloane's to the West Indies and Banks & Solander to Australasia are housed upright in cupboards in the vascular plant section of the Herbarium near the Botany Library. These are soon to be moved into the Bernard Sunley Special Collections Room where they can be stored flat to prevent any further deterioration of the specimens.

A pteridophyte workshop on curatorial techniques and fern holdings of the Herbarium and Library was attended on Saturday September 23<sup>rd</sup>. This was of particular interest as many rare books from the

17th-19th century, normally not accessible, were on display.

### Linnean Society of London

The Linnean Society of London is currently going through the processes of satisfying requirements for registration as a Museum. My recent visit to Burlington House to examine a Linnean specimen coincided with that of the inspector considering the registration so I was living proof that consultation of the specimens did occur. In addition, I was invited by the Chairman to join them in the steel vault in the basement housing the Linnean material and surrounded by Linnaeus's personal library and his herbarium and faunal collections I was asked to give my views on their scientific value.

Bob Chinnock  
ABLO  
December 1999

## ARTICLES

### 1998 Eichler award recipients' reports

Ryonen Butcher

PhD student, Department of Botany,  
University of Western Australia, Nedlands, WA 6907

I was awarded a 1998 Eichler Research Grant of \$1000 to assist my PhD research into the taxonomy and phylogeny of the South-Western Australian endemic *Synaphea* (Proteaceae: Conospermeae). The grant was used to facilitate an examination of the internal transcribed spacer (ITS) region of nuclear ribosomal DNA (nrDNA) and the molecular characters were intended to supplement a cladistic data set in which there is a paucity of morphological and anatomical characters.

Additionally, ITS 1 and ITS 2 characters were envisaged as being a contrasting source of phylogenetic information for this study, which will concentrate on the resolution of the infrageneric classification of *Synaphea*, especially within section

*Synaphea* which contains the majority of species (44 of the 50 currently described) loosely united by their possession of a shortly emarginate stigma.

The funding was used to purchase chemicals, equipment and services required for the extraction, purification, amplification and sequencing of DNA. This included the construction and trial of region specific primers, the assessment and determination of suitable polymerase chain reaction (PCR) and sequencing protocols of the ITS 1 and ITS 2 regions for 14 taxa. The small selection of taxa represented a range of morphologically diverse as well as similar forms within *Synaphea*, and the sequence information derived from these was aligned and

compared to resolve taxonomic and phylogenetic queries.

Sequencing problems were encountered in the ITS 1 region in all but one of the taxa sampled, with secondary structure of DNA causing the sequence trace to collapse to nothing after a run of repeated Gs approximately one-third of the way through the read. Consequently I was unable to obtain complete sequence data for this region. Potential solutions to this problem include the addition of chemicals to the sequencing reaction mix which will denature secondary structure and allow the read to continue uninterrupted, or sequencing up to this collapsed area from the opposite direction and piecing the two separate reads together as best as possible. Comparatively, sequence data from the ITS 2 region

has been relatively unproblematic to obtain but has yielded a very small number of phylogenetically informative characters, with some morphologically distinct taxa possessing no base pair polymorphism in this entire region! Failure to obtain good ITS 1 characters so far is an unfortunate development, as this region has been found to possess both more base pair INDEL (insertion-deletion) and substitution characters than ITS 2. These results indicate that the ITS region may not be the most suitable for phylogenetic studies in *Synaphea* and it may be necessary to sequence a different locus of the genome which has been found to be more variable than ITS in other taxa (e.g. 5S intergenic spacer or the ETS region of the 45S rDNA repeat unit) in order to elucidate relationships within this group.

## The Systematics of *Olearia* (Astereae)

Edward Cross

University of New South Wales

*Olearia* Moench. (Astereae, Asteraceae) is one of the largest (ca. 180 spp.) assemblages of daisies in the Australasian region (Nesom 1994). All *Olearia* species are shrubs and many occur in the montane regions of NSW, Victoria, Tasmania, New Zealand and New Guinea. The morphology of *Olearia* is highly variable (Nesom 1994). Such variability, if considered in the context of a family (Asteraceae) renowned for its convergent evolution (Carlquist 1976), has made assessing the affinities at both specific and suprageneric levels problematic.

Bentham (1867) divided *Olearia* into five sections based on variation of the indumentum on the abaxial leaf surface: Dicerotriche possessing divaricate or t-shaped hairs, Asterotriche having stellate hairs, Eriotriche with woolly hairs, Merismotriche with glandular hairs and Adenotriche, devoid of hairs. The validity of these groups and their application to the New Zealand and New Guinean members of *Olearia* have been queried. *Olearia ramulosa* (Australian endemic) has hairs placing it in several sections (Willis 1955), while *Olearia heterotricha* (New Guinean endemic) has hairs which do not conform to any section (Koster 1966).

Many suprageneric affinities have been proposed. Early taxonomists considered *Olearia* to be closely related to the Northern Hemisphere *Aster* (Cheeseman 1906, Hooker 1867). More recent

studies have associated it with Australasian genera including *Achnophora*, *Celmisia*, *Damnamentia*, *Erigeron* (*pappocromus*), *Pachystegia*, *Pleurophyllum*, South American genera *Chiliotrichum* (Bremer 1994), *Oritrophium*, *Hinterhubera*, *Novenia* (Nesom 1994), the Madagascan genus *Madagaster* and the Hawaiian genus *Remya* (reviewed in Heads 1998). With the exception of Bremer, all these studies are not based on cladistic analyses and hence it is difficult to assess the validity of these relationships. Several of these studies have also directly brought into question the monophyly of *Olearia* as they consider different groups within *Olearia* such as the New Zealand macrocephalous group to be more closely related to members of other genera (Given 1973).

In cases such as this, molecular data has been especially useful in elucidating phylogenies (for eg. recent work on *Vittadinia* and relatives by Lowrey et al. in press). The use of molecular methods to generate hypotheses of phylogeny has many advantages including the large number of variable characters, often typified by relatively low levels of homoplasy and fewer problems of determining homologous states (Hillis 1987).

The main aims of my research were to

1. Use sequence data generated from the ITS region to test the monophyly of *Olearia* using a range of outgroup representatives.

2. Assess Bentham's sectional classification of *Olearia* as well as the affinities of *Olearia* to the genera with which it has been linked.
3. Investigate the evolution of a range of morphological characters considered useful in delimiting genera in Astereae.

In brief, the results suggest that *Olearia* is not monophyletic and that it requires re-appraisal. Within Astereae, relationships were complex: some Australasian members of *Olearia* and the South American *Chilotrachium* may have diverged early in the evolution of the tribe, while other groups of *Olearia* appear to have evolved much more recently. Although Bentham's sections were only of limited use in defining monophyletic groups within *Olearia*, other characters such as the coverage of hairs on the achene were informative of relationships.

The Hansjörg Eichler Award of \$750 was imperative for the completion of this project. It enabled fresh leaves for molecular analysis and flowers and fruit for morphological analysis to be collected from Mount Kosciuszko National Park and the ACT.

It was an honour to receive the Hansjörg Eichler Award and I would like to express my sincere gratitude to all members of the Australian Systematic Botany Society. I am also indebted to my supervisor Christopher Quinn for all his encouragement and assistance throughout the duration of this project.

## References

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- Nesom, G. 1994. Subtribal Classification of the Astereae (Asteraceae). *Phytologia* 76: 193-274.
- Willis, J. 1955. Systematic notes on Victorian Compositae. *Muelleria* 1: 24-35.

## Clunies Ross National Science & Technology Award

This prestigious annual Award was introduced in 1991 by the Ian Clunies Ross Memorial Foundation. It has now honoured forty-six special Australians who have made an outstanding contribution to the application of science and technology for the benefit of Australia.

Award recipients will be publicly honoured with a silver medal at a formal presentation and dinner to

be held at Hotel Sofitel, Melbourne on Wednesday 29 March 2000.

Contact Mary Bolger on (03) 9854 6266 (Email: [icr@crnet.com.au](mailto:icr@crnet.com.au)) or visit our web site at <http://www.cluniesross.org.au>

## DAMPIER 300

### Dampier 300 Conference, Perth, 6-10 December

Registrations for the conference reached 173 (including 40 students), a number attending for one or two days for specific sessions. They came from: Western Australia 83, Northern Territory 3, South Australia 13, Queensland 13, New South Wales 16, Australian Capital Territory 14, Victoria 16, Tasmania 5, New Zealand 2, United Kingdom 2, Israel 1, United States 5. 82 papers and 25 posters were presented, and several software packages demonstrated.

On behalf of the organising committee I express my thanks to presenters and registrants for making it such a successful gathering. Botanists, zoologists and others mingled well and maintained a very good attendance at all sessions.

A few copies of the program and abstracts are available from me at the address below for \$A20.00 including postage.

Andrew Burbidge's Nancy Burbidge Memorial Lecture will be reproduced in the next issue of the newsletter.

Alex George  
'Four Gables', 18 Barclay Road, Kardinya,  
W.A. 6163  
Phone (08) 9337 1655; fax: (08) 9337 9404;  
email alextris@iinet.net.au

## INCITES

### INCITES

#### Articles posted to the Australian Science and Technology Online website for September 1999.

Pressure on Nick Minchin, even from within the Government, to take a stronger stand on issues relating to science, technology and innovation. (News) 30/9/99  
<http://www.asto.com.au/Minchpressa.htm>

Once were wimps - Australian scientists have shed the wimp label only to be colonised by the political process (News) 30/9/99  
<http://www.asto.com.au/oncewimps.htm>

New quarterly journal 'Data' on IT policies, programs, industry development and news. Published by DOCITA in hard copy and electronically. (Release) 30/9/99  
[http://www.asto.com.au/data\\_journal\\_launched.htm](http://www.asto.com.au/data_journal_launched.htm)

Summaries of the papers from the Intellectual Ownership and the Law symposium available online (Release) 29/9/99  
[http://www.asto.com.au/ip\\_forum\\_papers.htm](http://www.asto.com.au/ip_forum_papers.htm)

CSIRO and RhoBio announce research alliance centred around the discovery of a genetic 'promoter' which can switch genes on and off. 28/9/99 (Release)  
[http://www.asto.com.au/gene\\_switch.htm](http://www.asto.com.au/gene_switch.htm)

Sydney Internet company Viator and CSIRO team up to develop on-line travel planner. (Release) 28/9/99  
[http://www.asto.com.au/cyber\\_trips.htm](http://www.asto.com.au/cyber_trips.htm)

New seed capital fund Add Venture Capital to build a portfolio of higher risk growth oriented ventures.  
(Journal) 26/9/99  
<http://www.asto.com.au/riskventurefund.htm>

Chief scientist heads up inquiry. First comprehensive scientific capability review to be undertaken in Australia for many years. (Release) 24/9/99  
<http://www.asto.com.au/scirevrel.htm>

Background on science capability review. Terms of reference, contacts and address for e-submissions (ISR Document) 24/9/99  
<http://www.asto.com.au/scicaprev.htm>

FASTS has set Wednesday November 24 as the day to invade Members and Senators at Parliament House. (Release 24/9/99)  
[http://www.asto.com.au/science\\_\\_politics99.htm](http://www.asto.com.au/science__politics99.htm)

Australian Technology Network group of universities support Green Package reform package but attack lack of funding, likely reduction research places devoted to applied research, and lack of detail available. (Full submission) 21/9/99  
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For a comprehensive Calendar of Events go to <http://www.asto.com.au/calend.htm>

## NEWS FROM FASTS

### Commercialising science, and Dr Kemp's white paper

Australia's peak body for scientists and technologists today (Friday) expressed surprise at remarks made by Education Minister David Kemp on the ABC Radio program AM last Wednesday.

The Minister criticised Australian scientists for a lack of entrepreneurial attitude, and for failing to generate the jobs and the industries the Government is seeking.

President Professor Sue Serjeantson, President of the Federation of Australian Scientific and Technological Societies (FASTS), said that a study carried out by FASTS earlier this year found many scientists were keenly interested in commercialising their work (see below.)

"We found they were not given much encouragement by their research organisations, industry, or Government support schemes, which were sometimes criticised as being poorly-targeted.

"The Government's recent changes to the tax system are a tacit recognition that all was not well.

"It's not just scientists that have to change if we are to make good use of our research. Industry, research organisations and government all need to take a more commercial focus," she said.

Professor Serjeantson said the new ideas in the White Paper on Higher Education could distort the system, simply because scientists are so desperate for funding. Commercialisation is important, but we must maintain our national effort in basic research because this generates the ideas of tomorrow.

"The Government has missed an opportunity. The White Paper deals with relatively minor issues, instead of the enormous problems which scientists face daily in research and research training.

"But we welcome, for instance, a new independence for the Australian Research Council (ARC) and an extension of PhD scholarships up to four years. This Paper is a significant improvement over the earlier version, and shows the Minister has been listening to his constituency," she said.

Professor Serjeantson was sharply critical of the Government's failure to inject new funding into a sector which has been staggering under the weight of successive budget cuts. She estimated the total cuts amounted to nearly 20 per cent over the last four years.

"This Government really needs to inject fresh funds into the system. The smarter countries overseas

(USA, UK, Japan, Germany) are all investing heavily in research," she said.

"The Government seems intent on running a bargain basement university system. We will continue to lose our best scientists overseas, attracted by higher salaries and better research conditions."

\* "Scientists commercialising their research" describes the way scientists see the commercialisation process. Available from the FASTS' office, or the web site: [www.usyd.edu.au/fasts/](http://www.usyd.edu.au/fasts/)

## Report from FASTS

At midnight on November 23, Peter Cullen's two year term as President of FASTS concluded. The success of "Science meets Parliament" Day was a fitting conclusion to his splendid term as President, and our office is still coping with requests for follow-up information. The FASTS' Board has decided to run a similar event in 2000, and this will clearly be a priority for me as I begin my two year term as President

Participating scientists and technologists came from nearly all 45 Member Societies, with over 30 from the Institute of Physics. As a matter of policy we declined the registrations of several scientists who were not members of Societies affiliated to FASTS. The Board decided this event was a benefit of membership.

Three quarters of participants rated the meetings with Parliamentarians as "very positive" or "very encouraging", and the overall event was given an average score of eight and a half out of ten. The participants made three clear observations on Parliamentarians in their feedback sheets:

- \* MPs were fascinated by accounts of research being undertaken by scientists, so that most 30 minute meetings extended to an hour
- \* MPs want to maintain contact and be kept informed on issues, particularly electorate issues
- \* they urged scientists to communicate better with people in the electorate, both directly and through the media, as a means of maintaining pressure on MPs

It was a great opportunity to promote the value of Australia investing in research. One highlight was the reception at Parliament House for 300 scientists and MPs hosted by the President of the Senate, the Speaker and the Minister. Another was meeting with key Parliamentarians such as Deputy Prime Minister John Anderson, Education Minister David Kemp, Communication Minister Richard Alston; ALP spokespersons Bob McMullan and Michael

Lee; and Deputy Leader of the Democrats Natasha Stott Despoja. Two thirds of all MPs and Senators met with a scientist that day, an outstanding commitment in their busy schedules.

Fifty-one Parliamentarians were asked the direct question "how is science doing?". Forty-two said science has problems, with the most common reasons being that it needs more funding or that it needs to raise public awareness

Our new Policy Document was launched at Parliament House on November 24. Minister Nick Minchin said at the launch that he and his Department found FASTS' contributions to the policy debate very useful. The Document has been completely revamped into 14 issues-based sections to make it easier to read policy on specific subjects. My thanks to Ken Baldwin for an excellent job in chairing the Policy Committee, and to the scientists who helped with comments on early drafts.

Copies of both the Policy Document and the new FASTS' brochure are enclosed, and we can provide multiple copies if you wish to distribute them to your Members.

As previously advised, membership subscription rates to FASTS will increase from July 2000. Our level of services has gone up, and we need to add to our capacity to analyse data and respond to requests for information quickly. The Board is determined to increase membership of FASTS so the cost of providing a better service can be spread over more Members. We would like the opportunity to meet with as many Member Societies as possible, and invitations to your meetings and conferences would be most welcome.

Our new Board and Executive has members in Adelaide, Brisbane, Canberra, Melbourne and Sydney. A list of these people and their contact points is attached. If you have issues you would like to raise, please contact the Board Member

representing your cluster or any member of the Executive or the Executive Director.

I will conclude by thanking Peter Cullen for the excellent condition in which he handed FASTS over to me. He has built upon the work of his predecessors Graham Johnston and Joe Baker to establish FASTS firmly in the role of policy formulation. In particular he has played a wonderfully constructive role in the Prime Minister's Science, Engineering and Innovation Council. FASTS is widely regarded as punching

well above its weight in policy circles, with the SmP Day underlining what can be done even on a slim budget. Peter's report to Annual Council is enclosed.

I look forward to your support over the next two years.

Yours sincerely

*Sue Serjeantson*

## **President's Report**

**Peter Cullen**  
**Council Meeting 23rd November, 1999**

### **1. Introduction**

As I come to the end of my term as president of FASTS it is a time both to celebrate our achievements and to reflect on how and what we might have done better. Celebrating might strike you as strange when we see the sustained attack on our Universities taking a heavy toll on science, and the general lack of funding support from Government is a grave concern for the future of our country. But FASTS does have plenty to celebrate: we are now a mainstream player in science policy issues and we have consolidated our reputation as a serious and well-respected voice for science.

In my view we have had another successful year. We have excellent access to Ministers and the Government, and an exceptionally good media profile. This was however achieved by a relatively small number of people making major contributions, and is getting harder given the stress in most academic and science organisations today. In my view, FASTS must continue to become more professional as a lobby group. This requires more funding. We must also become more inclusive so we better involve members in policy development, the drafting of submissions and the many other activities such as Forums and Occasional Papers which are all critical elements in our work.

### **2. Membership and Finance**

There are two ways we can increase our resource base. We can and should seek to increase our membership. This will provide revenue. It will also provide energy and ideas if we can organise

ourselves to utilise the skills and talents within our Member Societies.

Our membership drive over the last year has brought us some new societies, but we are also losing a few who obviously do not see they get value for money from FASTS. It is clear we need to do more to keep societies and their members aware of what FASTS is doing, and we need to do more to find out what they think FASTS should provide. In communicating outwards to our membership we need to assess the relative importance of:

- Media coverage in both the scientific press and the general media
- Bi-monthly circulars to Presidents
- Phoning around by sector representatives
- Direct contact with the Executive Director
- Members of the Executive addressing meetings of Member Societies and prospective members

We are re-thinking our different classes of membership and what each group get in return for their subscription. How much in the loop should we keep groups that have similar interests, but choose not to pay any subscriptions to FASTS? These are important strategic issues for FASTS that I hope we will be able to address.

We also need to increase our subscription rate, and you will have the opportunity to comment on the Board's decision on that matter in the meeting. I believe we need an annual income of around \$150,000 a year to do the things we need to have done. Some of this will be to pay professionals to



help us develop our positions and analyses of situations.

### **3. The Role of FASTS**

FASTS is consulted on a range of science issues. I thank my predecessors Joe Baker and Graham Johnston for creating this foundation. The Executive and Executive Director, Toss Gascoigne, have made critical contributions to achieving this position.

Prime Minister's Science Engineering and Innovation Council (PMSEIC) The Prime Minister's Science, Engineering and Innovation Council is now a key source of advice to government, as the only forum that allows a whole-of-Government approach to be developed on science issues. Incoming President Sue Serjeantson now becomes the FASTS' ex officio position as a member of PMSEIC and will attend her first meeting on Friday. PMSEIC has a Standing Committee of the non-Ministerial members who meet from time to time and identify issues that might be developed for presentation to PMSEIC.

This provides an opportunity for FASTS to raise issues. I raised the issue of the development of antibiotic resistance bacteria as a result of inappropriate use of antibiotics as growth stimulants in livestock. This is an issue brought to us some time ago by the Australian Society of Microbiology. The Society provided useful documentation which I tabled and I believe PMSEIC is likely to establish a working group on this issue.

During my term on PMSEIC I co-chaired the working group on Dryland Salinity which reported to the Council in November last year. At the invitation of the Chief Scientist and Ministers concerned, I have been involved with the development of the Government's response to the Salinity report which is due to be tabled at the coming meeting. This has been a challenging issue for the agencies involved since it is a difficult, cross-disciplinary and cross-jurisdictional problem.

### **4. Occasional Papers**

The issuing of occasional papers on matters of importance is a new step for FASTS. Our biotechnology paper by Peter French helped build the pressures for a successful budget outcome in this area. The second occasional paper by Toss and Jenny Metcalfe ("Scientists commercialising their Research") has been well received and I will have the opportunity next week to present it to the

PMSEIC. It will be a useful building block to the Innovation Summit early next year.

Other sectors of FASTS should think about mobilising their energy and thinking to develop Occasional Papers on matters of concern to them. It is a useful way of consolidating thinking on an issue, and provides a rich resource of material for submissions. It is my view that this Government, like most Governments, is interested in good ideas: they just get tired of being told to send more cash without the new ideas.

### **5. Press Club Forums**

Over the last two years, FASTS has developed its innovative and influential Forums at the National Press Club in Canberra. These give us incredible exposure and let us not only present our ideas, but to develop alliances with other organisations that seek to influence Government. I acknowledge the efforts of Jan Thomas as a tower of strength in making these events work. The fact that powerful lobby groups like the Business Council of Australia and the Australian Chamber of Commerce and Industry are prepared to work with us is a clear signal that business sees the need for Government support for research. The nationally televised Press Club speeches by Ian Lowe, Tim Besley and John Niland have helped shape the agenda and keep our issues before Government.

### **6. Submissions**

During the year we have made a number of submissions. These include:

- The Higher Education Research Green Paper
- Inquiry into Impacts of Reforms in Government on R&D
- Review of Science & Technology Awareness Program

### **7. Meetings with Ministers**

I have had a number of meetings with the Minister for Industry, Science and Resources Senator Nick Minchin; Minister for Environment Senator Robert Hill; and Ministers for Agriculture, Fisheries and Forestry, Mark Vaile and Warren Truss. The PMSEIC meetings have brought me into regular contact with the Prime Minister and a number of Cabinet ministers on both a formal and informal basis.

### **8. "Science meets Parliament" Day**

Today marks another new initiative for FASTS with the "Science meets Parliament" Day. This has been championed by Ken Baldwin; and he and Sue

Serjeantson (with Toss and the FASTS' staff) have put in a huge effort in planning it. The response from our Member Societies has been fantastic with over 170 scientists registering. We have had to turn more away, either because they registered late or because they were members of societies not affiliated with FASTS. The "SmP" Day is a benefit of membership.

Even more fantastic is the support we have had from Parliament. Speaker Neil Andrews and Minister for Industry, Science and Resources Senator Nick Minchin have given strong support, and this has been replicated by the spokespersons for science in both the Opposition and the Democrats. That we have 140 parliamentarians agreeing to meet with scientists is a remarkably positive response.

### **9. The Science Scene in Australia**

The haemorrhaging of the Universities continues with the failure to provide salary supplementation, and a number of expensive science courses are in serious difficulties. Australia is starting to lose scientific capacity. More and more university staff are now admitting the decline in quality of what we offer students. A number of our major universities have made serious cutbacks in science faculties during the year. We have not yet succeeded in getting the Government to treat this issue seriously.

I think the Government is aware of the funding problem, but believe the solution is to shift the costs of higher education from the taxpayer to the people they see as the immediate beneficiaries: the students and their parents. The issue is not just one of persuading the Government that there are major economic returns from investing in science, but it is necessary we establish this case in the way the Wills Report did for medical research.

The key to changing the Government's behaviour is to argue the case for public investment and demonstrate the need for an appropriate cost-sharing. In the past, equity arguments have helped but they are less persuasive to this Government.

The Deans of Science commissioned a professional study into science enrolments that shows how misleading the sorts of statistics being collected by Government are. The effect of these statistics is to mask important enrolment trends. The quite dramatic collapse in enrolments in basic sciences is being disguised in the official statistics by increases in related application areas. Rather than wringing our hands about the workings of the employment market, we need to be clear as to the long-term

impacts and to develop market solutions to address the problem. HECS charging rates are an obvious lever available to Government.

The collapse of Business Expenditure on R&D continues with a further 7% reduction announced in the last budget papers. (You will find this referred to as "Business Investment on R&D" - BIRD - in our new Policy Document, as a more appropriate description.) The impacts of the drop in the tax deduction for research is now obvious, and in my view serious. It is clear that the START program is not effective in stimulating R&D, and that supplementary approaches are needed. The Government's response is that Government expenditure in this area is very high in international terms. This may be true in relative terms, but these figures are based on built-in assumptions about how much of the higher education budget is spent on research. The assumptions need revisiting, given the contraction of university funding.

The Government's cutbacks to R&D are all the more perplexing when seen in the international context. Most of our major competitors are increasing their support for research.

The Government is interested in innovation where it can convert good ideas into industry, wealth and employment. We need to establish the point that a strong basic and applied research sector is the fundamental driver to innovation; and that it is necessary, although not sufficient, for us to become a knowledge economy. It is important that we have a level playing field so that new start-up companies can grow and prosper in Australia. It is for this reason that I have strongly supported the changes to the capital gains tax regime to bring it more in line with the US and UK. We also need to ensure our company takeover rules do not mitigate against Australian companies growing in Australia. The Government has been listening to these issues and has proposed changes.

I have taken the view during my Presidency that this Government is interested in stimulating the economy, and so the way forward is to push the role of R&D in underpinning the new knowledge economy. There is no one arguing against this: the problem is the lack of good ideas to carry it forward. In particular the innovation process that links good science to economic outcome is poorly developed and poorly understood. Arguing that basic science is the fundamental building block for the knowledge economy is all very well, but when our own study of commercialising research shows people do not

know how to commercialise or are not very interested in commercialising, it is hard to argue that this is a smart investment.

We need to build stronger links with business and industry to get their support for our lobbying for science. One way to achieve this is to use our undoubted media skills to target the financial press.

### **10. The Emerging Role for FASTS**

It is apparent that to influence policy we need two things:

- \* The ability to analyse situations to help clarify issues and possible solutions; and
- \* The ability to deliver those options to Government and the politicians.

In my view our delivery mechanisms, both direct and through the media, are presently outstripping our analytical capacity. It is for this reason that I argue we need more funds to hire professional skills not within our memberships, and to mobilise more of the intellectual firepower of our members.

The Biotechnology paper is an example of what we can do; and the Wills report and its impact on medical research funding shows what can be achieved by high level analysis showing the returns on investment in research. The days of bleating that science is great and that all Governments have to do is send cash are over. If we want financial support we need to demonstrate the financial, social and environmental benefits to Australia. This requires greater analytical skills in economics than we have so far been able to muster.

We do need to develop some small task forces to track specific areas and to help develop sharper positions that we can take to Government.

### **11. In Conclusion**

In my view the need for an organisation like FASTS has never been more clear. There is no other voice speaking for science as a whole. Individual societies advocating science can be picked off as being nothing more than special pleading. Many of our societies would like to learn more about influencing policy, and FASTS is assisting in this area

It is an exciting and rewarding opportunity to be President of FASTS and I have enjoyed it all, despite the difficult times we find ourselves in. It would be nice if one could do the job full-time, but even then it would not be enough to do all the things that we should be doing to advance the cause of science.

It is time to thank all of you for your support of FASTS, and the personal support and encouragement so many of you have given me, even as you have helped me understand the breadth and diversity of issues of concern to FASTS' members.

During my term I have had wonderful support and encouragement from Past-president Joe Baker and President-elect Sue Serjeantson. As Vice-president Jan Thomas has put in a sterling effort, as have Ken Baldwin as Chair of our Policy Committee and other members of the Executive. You are all aware of the contributions made by Toss Gascoigne as Executive Director. Toss provides the critical communications between our members, between FASTS and other related bodies and with Government. He is responsible for the strong media position of FASTS, which is a critical foundation to our being taken seriously by Government. It has also been a great pleasure to have the opportunity to work with him.

*Peter Cullen*

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## **What follows is a random selection of comments by scientists on the Parliamentarians they visited.**

**All Parliamentarians' names began with A, B or C - except one.**

"He clearly appreciates the value of science to rural industries in his electorate ... wants distance education to be extended and accessible to his electorate. Very positive - in fact, he talked to us for an hour." (ALP backbencher)

"He is already a convert to the concept of science funding as an investment. Very supportive but stressed the realities of Treasury limitations." (Cabinet Minister)

"Mildly interested in science but removed from its importance. Happy to have regular briefings." (Lib. backbencher)

"Good contact and exchange of information." (Lib. backbencher)

"Started slowly. He seemed very cautious. Opened up as interview progressed. Lasted for one hour. Frank and open by the end." (Lib. backbencher)

"Supportive but requiring examples. Expressed surprise at maths and science. Wants vote-catching issues." (ALP Shadow Ministry)

"He is obviously enthusiastic about science and quite science literate ... No real progress on the 'science as an investment' line. He was most persistent that industry should invest in science and yet 'knowledge' should be kept in public hands." (Lib. backbencher)

"Very favourably received. Did seem genuinely interested, not platitudinous. Also keen to be involved in solutions, even those long-term issues." (Lib. backbencher)

"Surprised at extent of high school science enrolments and attitudes. Senator was very positive about science, concerned about the issues and seemed genuinely glad to have been visited by us." (Dem.)

"Very favourable, it went for 55 minutes. He was very interested in our visit and glad to be informed of issues. Scientists do not communicate well to schools and the general public. [There is] a potential need to increase incentives for industry to

invest in R&D. Australia is NOT the clever country!" (Lib. backbencher)

"On a learning curve. She was very keen to be better informed and will meet [again] in the New Year. Keen interest in science developments in her constituency." (ALP backbencher)

"Very positive. He said: 'keep lobbying us - this is the perfect time as the ALP is developing policy.' Government has to take responsibility for providing certain services and education is a key one! R&D is another." (ALP backbencher)

"Positive, favourable with respect to science and development of consortiums. [Supported] increased funding for R&D, reintroduction of 150% tax deduction BUT not for manufacture and with proper audit." (Lib. backbencher)

"Excellent. Went on for one and a half hours. This person is intelligent and 'critically' sympathetic. Has himself attempted to support and encourage scientists through a proposal for accelerated private funding of Australian research. Believes that current tertiary structure has numerous deficiencies." (Lib. backbencher)

"Believes that S&T has large and critical role to play in sustained development. Sympathetic to increased university funding. A positive experience for the Senator." (ALP backbencher)

"Really excellent. He had a bit of fun grilling us for a while but it was just good fun. Very supportive; very friendly and hungry for information he could use. One of the converted as far as our 'investment' message is concerned." (ALP backbencher)

"Hopeless. We're paying a Parliamentarian who has an attention span of 10 seconds and is not interested in issues of consistency or Australia." (no identification - but not a Minister)

"Seemed very laid back and not very interested. Offered advice that in the lead-up to the next election [we should] seek policy change not funding promises. Could be self-interest." (ALP backbencher)

"Excellent! She allocated two hours! Strong support for science, willingness to help, concerned

with science illiteracy in Parliament, concerned with how school structure discouraged science study." (ALP backbencher)

## **Australian Council of Deans of Science**

**Media Release 12 October 1999**

### **TRENDS IN SCIENCE EDUCATION –**

#### **A basis for the Future Planning of Australia's Science Resources**

The Australian Council of Deans of Science (ACDS) representing 35 universities in Australia met in Canberra on October 6-8. The major agenda item was the receipt and consideration of its commissioned report on Trends in Science Education: Learning, Teaching and Outcomes 1989-1997.

The ACDS report highlights the need for Australia to develop a scientifically trained workforce that will enable Australia to seize the advantages in already existing industries and those inherent in as yet still unrecognised areas of science and technology. Australia must grasp its opportunities by whole-heartedly embracing a knowledge-based economy, so clearly dependent on a strong Science and Technology sector.

The ACDS views with concern the decline of student numbers in both the Secondary and Tertiary sectors in the basic (enabling) sciences and mathematics now clearly demonstrated in this report and further elaborated in the accompanying paper, *Who is Studying Science*.

These enabling sciences will be necessary for the future scientific community to grasp the opportunities offered by such areas as nanotechnology, biotechnology and information technology. The ACDS at its annual meeting devised a set of strategies that it expects, with cooperation among state and commonwealth governments and industry, will reverse this serious threat to Australia's future economic development.

The ACDS in full Council resolved to take action in three principal areas.

Enhanced and Continuing Monitoring of "Trends" in science by:

... Collection and analysis of further science-related data on an ongoing basis

It is proposed that this analysis will be undertaken with the assistance and cooperation of and support from appropriate Commonwealth (DETYA and DISR) and State Government (Departments of Education, etc) Agencies and will involve data related to educational and employment outcomes in Science.

... Enhancement and Clarification of Data sets  
ACDS will identify to Universities, and Commonwealth and State agencies, those areas where additional, enhanced or more clearly defined data collection is necessary in order to properly monitor the health of science enrolments, educational trend and graduate employment levels in Australia. Such proposals are to be seen as improving the utility of these data sets and as allowing more readily, the recognition of the economy-threatening trends revealed in our latest report.

Commentary on and Raising Awareness of Trends in Science

... Occasional Papers

The ACDS will produce a series of occasional papers (such as the *Who Is Studying Science* paper) from the current and future compilations of data in order to highlight both advances and deficiencies in the Australian science scene

... Consultation and Lobbying

Through its own auspices and in association with bodies such as Federation of Australian Science and Technological Societies (FASTS), the Australian Science Teachers Association (ASTA) and the Australian Academy of Science, ACDS will ensure that the Chief Scientist, appropriate Ministers of Science and Education at both Commonwealth and State levels and their officers who administer Science and Education policy are alerted to the concerns and aspirations concerning teaching and research in Science.

The first step in this process will be the distribution of the Report and the first Occasional Paper to the all relevant Commonwealth and State Minister, the Chief Scientist, FASTS its constituent bodies, the Academy of Science and the Australian Vice-Chancellors Committee (AV-CC). The next step will be personal representations by the Executive Members of the ACDS Board.

One important part of the ACDS strategy will be participation in the Science Meets Parliament Day being sponsored by FASTS in November this year. Another important contribution, in addition to the provision of this report to the Chief Scientist, will be consultation with him on the recently announced Review on Science Capabilities in Australia.

#### Secondary School Teaching of the Enabling Sciences and Mathematics

... Enhancement of Currency of Knowledge of Secondary Science Teachers  
ACDS will seek urgent discussions with the Australian Science Teachers Association (ASTA) and State and Commonwealth Departments of Education on methods whereby ACDS can assist current Science Teachers enhance their knowledge, relevance in relation to developing technologies, and innovative means of presentation of the key enabling disciplines (Physics, Chemistry and Mathematics).

One such process will be proposals for new (or modification and facilitation of existing) programs of postgraduate study (e.g., GradDipScience or modular MSc programs). Such programs would provide activities as problem-based teaching projects, development of suitable teaching aids, and exposure of current teachers to science-in-action in both industry and university environments.

... Support and for Enhanced Training by Science Teachers  
ACDS will seek Commonwealth and State support for the provision of HECS (or fee) exemption Scholarships for Secondary Teachers undertaking "upgrading programs" such as those proposed immediately above.

... Recognition of Enhanced Training by Science Teachers  
ACDS will request State Governments (Ministers of Education) to recognise in a tangible way, those Secondary Teachers who undertake upgrading programs.

... Recruitment of Secondary Science Teachers  
ACDS will continue its moves to have differential HECS for practising Science Teachers removed and pursue with ASTA all appropriate programs for addressing the impending shortage of suitably qualified Secondary Science Teachers across Australia.

The papers referred to in this release can be found on the ACDS Website at  
[www.acds.edu.au/issues.htm](http://www.acds.edu.au/issues.htm).

Limited hard copies of the Reports or a CD-ROM version can be obtained through the Secretary of ACDS, Professor Brian Collins, Faculty of Science, Curtin University  
(Tel. 08 9266 2838, Fax. 08 9266 3747, email [B.Collins@info.curtin.edu.au](mailto:B.Collins@info.curtin.edu.au)).

Media Inquiries: Professor Rob Norris, President of ACDS and Dean of Science, University of Wollongong (02) 4221-3512 or message/mobile 040 742 249



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## A.S.B.S. INC. MEMBERSHIP RENEWAL

### AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

(incorporated under the Associations Incorporation Act 1991)

### SUBSCRIPTION FORM

Subscriptions for A.S.B.S. membership for 2000 are due on 1 January, 2000. If you have already paid your subscriptions for 2000, please ignore this pro forma notice. The *Australian Systematic Botany Society Newsletter* will not be sent to unfinancial members. Correspondence concerning membership and subscriptions should be sent to the Treasurer at the address below.

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In addition, your contribution to the HJ. Eichler Research Fund would be most welcome. Please return the form below with your 2000 subscription, plus any arrears, voluntary contributions to the Research Fund with any address corrections, to the Treasurer at the address shown below. Your cheque should be made payable in Australian dollars to: Australian Systematic Botany Society Inc.

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## A.S.B.S. PUBLICATIONS

### **History of Systematic Botany in Australia**

Edited by P.S. Short. A4, case bound, 326pp. A.S.B.S., 1990. \$10; plus \$10 p. & p.

For all those people interested in the 1988 A.S.B.S. symposium in Melbourne, here are the proceedings. It is a very nicely presented volume, containing 36 papers on: the botanical exploration of our region; the role of horticulturists, collectors and artists in the early documentation of the flora; the renowned (Mueller, Cunningham), and those whose contribution is sometimes overlooked (Buchanan, Wilhelmi).

### **Systematic Status of Large Flowering Plant Genera**

A.S.B.S. Newsletter Number 53, edited by Helen Hewson. 1987. \$5 + \$1.10 postage.

This Newsletter issue includes the reports from the February 1986 Boden Conference on the "Systematic Status of Large Flowering Plant Genera". The reports cover: the genus concept; the role of cladistics in generic delimitation; geographic range and the genus concepts; the value of chemical characters, pollination syndromes, and breeding systems as generic determinants; and generic concepts in the Asteraceae, Chenopodiaceae, Epacridaceae, *Cassia*, *Acacia*, and *Eucalyptus*.

### **Evolution of the Flora and Fauna of Arid Australia**

Edited by W.R. Barker & P.J.M. Greenslade. A.S.B.S. & A.N.Z.A.A.S., 1982. \$20 + \$5 postage.

This collection of more than 40 papers will interest all people concerned with Australia's dry inland, or the evolutionary history of its flora and fauna. It is of value to those studying both arid lands and evolution in general. Six sections cover: ecological and historical background; ecological and reproductive adaptations in plants; vertebrate animals; invertebrate animals; individual plant groups; and concluding remarks.

### **Ecology of the Southern Conifers**

Edited by Neal Enright and Robert Hill.

ASBS members: \$60 plus \$12 p&p non-members \$79.95.

Proceedings of a symposium at the ASBS conference in Hobart in 1993. Twenty-eight scholars from across the hemisphere examine the history and ecology of the southern conifers, and emphasise their importance in understanding the evolution and ecological dynamics of southern vegetation.

### **Australian Systematic Botany Society Newsletter**

Back issues of the Newsletter are available from Number 27 (May 1981) onwards, excluding Numbers 29 and 31. Here is the chance to complete your set. Cover prices are \$3.50 (Numbers 27-59, excluding Number 53) and \$5.00 (Number 53, and 60 onwards). Postage \$1.10 per issue.

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Please inform us of any changes or additions.









# AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

## The Society

The Australian Systematic Botany Society is an incorporated association of over 300 people with professional or amateur interest in botany. The aim of the Society is to promote the study of plant systematics.

## Membership

Membership is open to all those interested in plant systematics. Membership entitles the member to attend general meetings and chapter meetings, and to receive the *Newsletter*. Any person may apply for membership by filling in a "Membership Application" form and forwarding it, with the appropriate subscription, to the treasurer. Subscriptions become due on January 1 each year.

## The Newsletter

The *Newsletter* appears quarterly, keeps members informed of Society events and news, and provides a vehicle for debate and discussion. In addition, original articles, notes and letters (not exceeding ten published pages in length) will be considered.

Contributions should be sent to the editor at the address given below. They should preferably be submitted as: - an unformatted word-processor file on an MS-DOS or Macintosh diskette (Microsoft Word 6 or an earlier version is preferred), accompanied by a printed copy; as an email message or attachment, accompanied by a fax message reporting the sending of the file; or as two typed copies.

The deadline for contributions is the last day of February, May, August and November.

All items incorporated in the *Newsletter* will be duly acknowledged. Authors alone are responsible for the views expressed, and statements made by the authors do not necessarily represent the views of the Australian Systematic Botany Society Inc. *Newsletter* items should not be reproduced without the permission of the author of the material.

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